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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/698,233

10/31/2003

Chihaya Adachi

10020/18103

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04/30/2008

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,233	<b>Applicant(s)</b> ADACHI ET AL.	
	<b>Examiner</b> Marie R. Yamnitzky	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 39,41-50 and 52-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39,41-50 and 52-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. This Office action is in response to applicant's request for reconsideration filed February 01, 2008.

Claims 39, 41-50 and 52-60 are pending.

2. Claims 39, 41-50 and 52-60 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement for reasons of record in the Office action mailed November 01, 2007.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 39 and 50 stand rejected under 35 U.S.C.102(b) as being anticipated by Baldo et al. in *Nature*, Vol. 395, pp. 151-154 (September 10, 1998) as evidenced by applicant's arguments filed August 09, 2007, for reasons of record in the Office action mailed November 01, 2007.

5. Applicant's arguments filed February 01, 2008 have been fully considered but they are not persuasive.

With respect to the rejection under 35 U.S.C. 112, first paragraph, the question is not whether one of ordinary skill in the art would be capable of measuring LUMO and HOMO

values of materials, the question is whether one of ordinary skill in the art at the time of the invention would be able to make the invention commensurate in scope with the present claims without undue experimentation. The present claims require two materials having specified relationships between various properties of the materials. There are numerous specific materials from which these two materials can potentially be selected. One of ordinary skill in the art at the time of the invention would be guided by the specific materials disclosed in the specification with the expectation that at least some of those materials would provide combinations meeting the specified relationships. Data of record show that at least some of the exemplary combinations do not meet the claim limitations although teachings in the specification suggest that they do, and the disclosure provides no specific example that clearly meets all the limitations with respect to the specified relationships between the various properties. Given the large number of materials from which the two materials can potentially be selected, and given the lack of guidance with respect to any specific combinations of materials that actually meet the required relationships, the examiner maintains the position that the present claims are not enabled.

With respect to the rejection under 35 U.S.C. 102(b), applicant argues that Lamansky et al. (US 2002/0182441) confirms that the combination of Alq<sub>3</sub> and PtOEP does not meet the relative triplet state energy limitation of claims 39 and 50. Applicant argues that, within experimental error, the reported triplet values of these two materials are the same. The present claims place no limitation on the difference between the triplet state energy between the phosphorescent dopant material and the electron transporting host material beyond the requirement that the dopant material have a triplet excited state with a triplet state energy that is

less than that of the host material. A dopant material having a triplet state energy that is a fraction of an eV less than the triplet state energy of a host material meets the relative triplet state energy limitation of claims 39 and 50. The first full paragraph on page 7 of the specification teaches a difference in triplet values of at least about 0.1eV between triplet host and triplet dopant, though the present claims don't even require that much of a difference between triplet values. If under the same measurement conditions, the triplet state energy of the dopant material PtOEP is measured to be 1.9eV, and the triplet state energy of the electron transporting host material Alq<sub>3</sub> is measured to be 2.0eV, it is not clear to the examiner why this combination of materials would not be considered to meet the triplet state energy relationship required by present independent claims 39 and 50.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

/Marie R. Yamnitzky/  
Primary Examiner, Art Unit 1794

MRY  
April 28, 2008